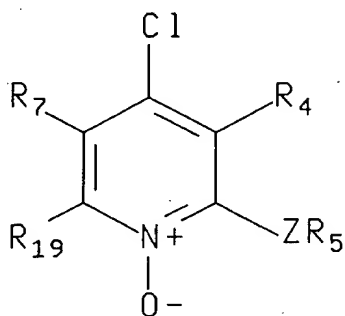
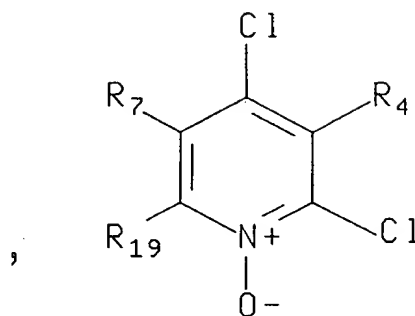


IN THE CLAIMS:

Claim 1 (currently amended) A compound of the formula

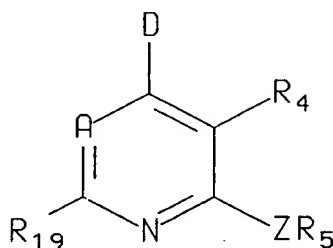


X



XI

or



IV

wherein R₇ is hydrogen, methyl, fluoro, chloro, bromo, iodo, cyano, hydroxy, -O(C₁-C₄ alkyl), -C(O)(C₁-C₄ alkyl), -C(O)O(C₁-C₄ alkyl), -OCF₃, CF₃, -CH₂OH, -CH₂OCH₃ or -CH₂OCH₂CH₃;

D is chloro, hydroxy or cyano;

R₁₉ is methyl or ethyl;

R₅ is phenyl or pyridyl and R₅ is substituted by two or three substituents independently selected from C₁-C₄ alkyl, chloro and bromo, except that no more than one such substituent can be bromo;

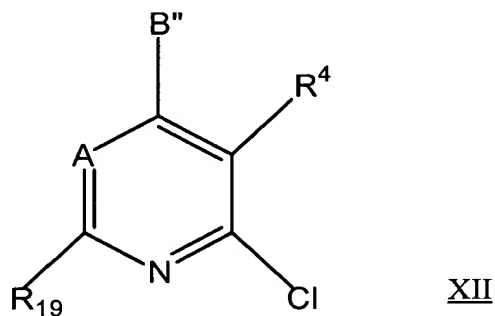
R₄ is hydrogen, C₁-C₄ hydrocarbyl, fluoro, chloro, bromo, iodo, C₁-C₄ alkoxy, trifluoromethoxy, -CH₂OCH₃, -CH₂OCH₂CH₃, -CH₂CH₂OCH₃, ~~-CH₂OF₃ =~~
CH₂OCF₃, CF₃, amino, nitro, -NH(C₁-C₄ alkyl), -N(CH₃)₂, -NHCOCH₃, -
NHCONHCH₃, -SO_n(C₁-C₄ alkyl) where n is 0, 1 or 2, cyano, hydroxy, -CO(C₁-C₄
alkyl), -CHO, ~~cyano~~ or -COO(C₁-C₄ alkyl) wherein said C₁-C₄ hydrocarbyl may
optionally contain one double or triple bond and may optionally be substituted with
one substituent selected from hydroxy, amino, -NHCOCH₃, -NH(C₁-C₂ alkyl), -N(C₁-
C₂ alkyl)₂, -COO(C₁-C₄ alkyl), -CO(C₁-C₄ alkyl), C₁-C₃ alkoxy, C₁-C₃ thioalkyl,
fluoro, chloro, cyano and nitro;

A is N, CH or CCH₃;

and Z is O, NH, N(CH₃), S or CH₂, with the proviso that when A is CH
or CCH₃, then Z must be O or S.

Claim 2 (previously presented) A compound according to claim 1 having the formula
XI wherein R₇ is hydrogen or methyl and R₄ is hydrogen, , C₁-C₄ hydrocarbyl, -O(C₁-
C₄ alkyl), chloro or cyano.

Claim 3 (currently amended) A compound of the formula



wherein R₁₉ is methyl or ethyl;

R₄ is hydrogen, C₁-C₄ hydrocarbyl, fluoro, chloro, bromo, iodo, C₁-C₄ alkoxy, trifluoromethoxy, -CH₂OCH₃, -CH₂OCH₂CH₃, ~~-CH₂CH₂OCH₃~~, ~~-CH₂OCF₃~~, -CH₂OCF₃, CF₃, amino, nitro, -NH(C₁-C₄ alkyl), -N(CH₃)₂, -NHCOCH₃, -NHCONHCH₃, -SO_n(C₁-C₄ alkyl) where n is 0, 1 or 2, cyano, hydroxy, -CO(C₁-C₄ alkyl), -CHO, ~~-COOH~~ ~~cyano~~ or -COO(C₁-C₄ alkyl) wherein said C₁-C₄ hydrocarbyl may optionally contain one double or triple bond and may optionally be substituted with one substituent selected from hydroxy, amino, -NHCOCH₃, -NH(C₁-C₂ alkyl), -N(C₁-C₂ alkyl)₂, -COO(C₁-C₄ alkyl), -CO(C₁-C₄ alkyl), C₁-C₃ alkoxy, C₁-C₃ thioalkyl, fluoro, chloro, cyano and nitro;

A is N, CH or CCH₃

B" is -NR₁R₂, -CR₁R₂R₁₁, -C(=CR₂R₁₂)R₁, -NHCHR₁R₂, -OCHR₁R₂, -SCHR₁R₂, -CHR₂OR₁₂, -CHR₂SR₁₂, -C(S)R₂ or -C(O)R₂ or cyano;
wherein R₁ is C(O)H, C(O)(C₁-C₆ ~~alkyl~~ hydrocarbyl), C(O)(C₁-C₆ alkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), C(O)(C₃-C₈ cycloalkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), C(O)(C₁-C₆ alkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), -C(O)(C₃-C₈ cycloalkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), C₁-C₆ ~~alkyl~~ hydrocarbyl, C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl, C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl, -(C₁-C₆ alkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), -(C₃-C₈ cycloalkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), -(C₁-C₆ alkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), -(C₃-C₈

cycloalkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), or -O-aryl, or -O-(C₁-C₆ alkylene)-aryl; wherein said aryl, C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl, C₁-C₆ ~~alkyl~~ hydrocarbyl, C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl, C₃-C₈ cycloalkylene, and C₁-C₆ alkylene groups may each independently be optionally substituted with from one to six fluoro and may each independently be optionally substituted with one or two substituents R₈ independently selected from the group consisting of C₁-C₄ ~~alkyl~~ hydrocarbyl, -C₃-C₈ cycloalkyl, hydroxy, fluoro, chloro, bromo, iodo, CF₃, -O-(C₁-C₆ ~~alkyl~~ hydrocarbyl), -O-(C₃-C₅ cycloalkyl), -O-CO-(C₁-C₄ ~~alkyl~~ hydrocarbyl), -O-CO-NH(C₁-C₄ ~~alkyl~~ hydrocarbyl), -O-CO-N(R₂₄)(R₂₅), -N(R₂₄)(R₂₅), -S(C₁-C₄ ~~alkyl~~ hydrocarbyl), -S(C₃-C₅ cycloalkyl), -N(C₁-C₄ ~~alkyl~~ hydrocarbyl)CO(C₁-C₄ ~~alkyl~~ hydrocarbyl), -NHCO(C₁-C₄ ~~alkyl~~ hydrocarbyl), -COO(C₁-C₄ ~~alkyl~~ hydrocarbyl), -CONH(C₁-C₄ ~~alkyl~~ hydrocarbyl), -CON(C₁-C₄ ~~alkyl~~ hydrocarbyl) (C₁-C₂ ~~alkyl~~ hydrocarbyl), CN, NO₂, -OSO₂(C₁-C₄ ~~alkyl~~ hydrocarbyl), S⁺(C₁-C₆ ~~alkyl~~ hydrocarbyl) (C₁-C₂ alkyl) I⁻, -SO(C₁-C₄ ~~alkyl~~ hydrocarbyl) and -SO₂(C₁-C₄ ~~alkyl~~ hydrocarbyl); and wherein the C₁-C₆ ~~alkyl~~ hydrocarbyl, C₁-C₆ alkylene, C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl, C₃-C₈ cycloalkylene, and C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl moieties of R₁ may optionally independently contain from one to three double or triple bonds; and wherein the C₁-C₄ ~~alkyl~~ hydrocarbyl moieties and the C₁-C₆ ~~alkyl~~ hydrocarbyl moieties of R₈ can optionally independently be substituted with hydroxy, C₁-C₄ alkyl, amino, aryl, -CH₂-aryl, -C₃-C₅ cycloalkyl, or -O-(C₁-C₄ alkyl), and can optionally independently be substituted with from one to five fluoro, and can optionally contain one or two double or triple bonds; and wherein each ~~heterocycloalkyl~~ heterocyclohydrocarbyl group of

R₁ contains from one to three heteromoieties selected from oxygen, S(O)_m, nitrogen and NR₁₂:

wherein R₂ is hydrogen, C₁-C₁₂ ~~alkyl~~ hydrocarbyl, C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl, C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl, -(C₁-C₆ alkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), -(C₃-C₈ cycloalkylene) (C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), -(C₁-C₆ alkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), -(C₃-C₈ cycloalkylene) (C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl), aryl, -(C₁-C₆ alkylene) aryl, or -(C₃-C₈ cycloalkylene) (aryl); wherein each of the foregoing R₂ groups may optionally be substituted with from one three substituents independently selected from chloro, fluoro, and C₁-C₆ alkyl, wherein one of said one to three substituents can further be selected from bromo, iodo, C₁-C₆ alkoxy, -OH, -O-CO-(C₁-C₆ alkyl), -O-CO-N(C₁-C₄ alkyl) (C₁-C₂ alkyl), -S(C₁-C₆ alkyl), -S(O)(C₁-C₆ alkyl), -S(O)₂(C₁-C₆ alkyl), S⁺(C₁-C₆ alkyl)(C₁-C₂ alkyl)I⁻, CN, and NO₂; and wherein the C₁-C₁₂ ~~alkyl~~ hydrocarbyl, -(C₁-C₆ alkylene), (-C₃-C₈ ~~cycloalkyl~~ cyclohydrocarbyl), (-C₃-C₈ cycloalkylene), and (-C₄-C₈ ~~heterocycloalkyl~~ heterocyclohydrocarbyl) moieties of R₂ may optionally independently contain from one to three double or triple bonds; and wherein each ~~heterocycloalkyl~~ heterocyclohydrocarbyl group of R₂ contains from one to three heteromoieties selected from oxygen, S(O)_m, nitrogen, and NR₁₂;

or where R₁ and R₂ are as in -NHCHR₁R₂, -OCHR₁R₂, -SCHR₁R₂, -CHR₁R₂, or -NR₁R₂, R₁ and R₂ of B may form a saturated 5- to 8-membered ring which may optionally contain one or two double bonds and in which one or two of the ring carbons may optionally be replaced by an oxygen, S(O)_m, nitrogen or NR₁₂; and which

carbocyclic ring can optionally be substituted with from 1 to 3 substituents selected from the group consisting of hydroxy, C₁-C₄ alkyl, fluoro, chloro, bromo, iodo, CF₃, -O-(C₁-C₄ alkyl), -O-CO-(C₁-C₄ alkyl), -O-CO-NH(C₁-C₄ alkyl), -O-CO-N(C₁-C₄ alkyl) (C₁-C₂ alkyl), -NH(C₁-C₄ alkyl), -N(C₁-C₂ alkyl)(C₁-C₄ alkyl), -S(C₁-C₄ alkyl), -N(C₁-C₄ alkyl) CO(C₁-C₄ alkyl), -NHCO(C₁-C₄ alkyl), -COO(C₁-C₄ alkyl), -CONH(C₁-C₄ alkyl), -CON(C₁-C₄ alkyl)(C₁-C₂ alkyl), CN, NO₂, -OSO₂(C₁-C₄ alkyl), -SO(C₁-C₄ alkyl), -SO₂(C₁-C₄ alkyl), wherein one of said one to three substituents can further be selected from phenyl;

wherein each N is independently zero, one or two;

wherein R₁₁ is hydrogen, hydroxy, fluoro, ethoxy, or methoxy;

wherein R₁₂ is hydrogen or C₁-C₄ alkyl;

with the proviso that when A is N then B" and R₄ are defined,

respectively, as B" and R₄ are defined above and when A is CH or

CCH₃, then B" is -NR₁R₂, -NHCHR₁R₂, -OCHR₁R₂ or cyano and R₄ is

an electron deficient group.

Claim 4 (previously presented) A compound according to claim 3, wherein B" is -NR₁R₂, -NHCHR₁R₂, and A is CH or CCH₃.

Claims 5-8 (cancelled)

Claim 9 (previously presented) A compound according to claim 3 wherein the electron deficient group is selected from the group consisting of NO₂, -COO(C₁-C₄

alkyl), -C(=O)CH₃, -COOH and cyano.

Claim 10 (previously presented) 4-Chloro-2-(4-chloro-2,6-dimethyl-phenoxy)-3,6-dimethyl-pyridine.

Claim 11 (new). The compound according to claim 1, wherein the compound has the formula X and Z is O, NH, S or CH₂.

Claim 12 (new). The compound according to claim 1, wherein the compound has the formula XI.

Claim 13 (new) The compound according to claim 1, wherein the compound has the formula IV.

Claim 14 (new/withdrawn). A process for preparing a compound of formula I shown below or a pharmaceutically acceptable salt thereof comprising:

(a) providing the compound of claim 3;

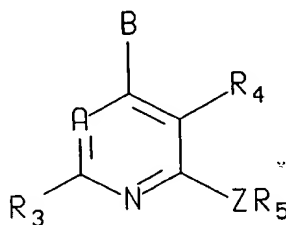
(b) providing a compound of formula R₅ZH, wherein

R₅ is phenyl or pyridyl, and R₅ is substituted with from one to three

substituents independently selected from fluoro, chloro, C₁-C₆ alkyl, and C₁-C₆ alkoxy, or with one substituent selected from hydroxy, iodo, bromo, formyl, cyano, nitro, trifluoromethyl, amino, -(C₁-C₆ alkyl)O(C₁-C₆)alkyl, -NHCH₃, -N(CH₃)₂, -COOH, -COO(C₁-C₄ alkyl), -CO(C₁-C₄ alkyl), -SO₂NH(C₁-C₄ alkyl), -SO₂N(C₁-C₄ alkyl)(C₁-C₂ alkyl), -SO₂NH₂, -NHSO₂(C₁-C₄ alkyl), -S(C₁-C₆ alkyl) and -SO₂(C₁-C₆ alkyl), and wherein the C₁-C₄ alkyl and C₁-C₆ alkyl moieties of the foregoing R₅ groups may optionally be substituted with one or two fluoro groups or with one substituent selected from hydroxy, amino, methylamino, dimethylamino and acetyl; and;

Z is NH, O, S, -N(C₁-C₂ alkyl) or -C(R₁₃ and R₁₄), wherein R₁₃ and R₁₄ are each, independently, hydrogen, trifluoromethyl or methyl, or one of R₁₃ and R₁₄ is cyano and the other is hydrogen or methyl;

(b) reacting the compound of claim 3 with the compound of the formula R₅ZH to form the compound of formula I:



I

wherein B is the same as B", and R₃ is methyl, ethyl, fluoro, chloro, bromo, iodo, cyano, methoxy, OCF₃, methylthio, methylsulfonyl, CH₂OH, or CH₂OCH₃ and R₄, R₅, Z and A are as described above or in claim 3; and

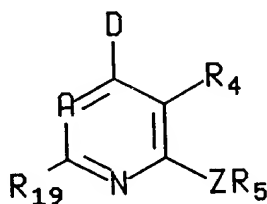
(c) optionally converting the compound of formula I into a pharmaceutically acceptable salt.

Claim 15 (new/withdrawn). The process of claim 14, wherein R_4 is nitro.

Claim 16 (new/withdrawn). A process for preparing a compound of formula IV shown below comprising:

(a) providing the compound of claim 1, wherein the compound has the formula X and D is chloro; and

(b) reacting the compound of claim 1 with phosphorus trichloride to form the compound of formula IV:



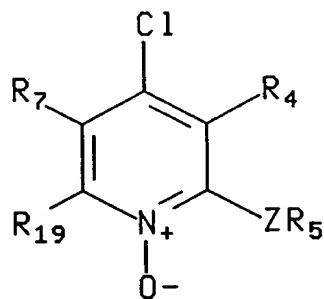
IV

wherein R_4 , R_5 , R_{19} , Z, A and D are as described above or in claim 1.

Claim 17 (new/withdrawn). A process for preparing a compound of formula X shown below comprising:

(a) providing the compound of claim 12; and

(b) reacting the compound of claim 12 with a compound of the formula R_5OH or R_5SH in the presence of a base to form the compound of formula X:



X

wherein Z is O, S or CH₂, and R₄, R₅, R₇ and R₁₉ are as described above or in claim 12.